95065

PROJECT NARRATIVE:
Greater Kalamazoo Telecity USA

1. EXECUTIVE SUMMARY

The fast pace challenge of today's global economy puts pressure on local communities, businesses and citizens. Michigan industries are strongly affected by this challenge. Many businesses shrink, while their communities struggle to survive. Kalamazoo County is taking action to increase its Information Age competitiveness in our increasingly global economy. The TELECITY project will upgrade the skills of local residents, increasing community competitiveness and the local economy through building a Local Information Infrastructure (LII). The LII will allow for interorganizational communications, and a dynamic information/knowledge exchange among local institutions, businesses, and citizens. The LII will serve as an interface to/from the NII and GII. Telecity is a network of application networks: communityNET, learnNET, collegeNET, healthNET, bizNET, and jobNET. The first year cost is $1.462 million. The request for NTIA grant funding is $650,000. Telecity will provide special training and assistance in accessing LII-NII-GII for the underprivileged and other information "have-nots." The project is a result of three years planning by over 100 community volunteers, organized into 15 task forces. Telecity should be a model for 200 similar localities in the US.

2. WHAT PROBLEM WILL YOU ADDRESS IN THIS PROJECT?

- The fast pace challenge of today's global economy puts pressure on local economies and communities. Michigan industries are strongly effected by this challenge. Businesses shrink and communities straggle to survive. Kalamazoo County and its cities are taking action to increase their Information Age competitiveness in global economy. The TELECITY project is aiming to upgrade the local economy and drives community competitiveness by building a Local Information Infrastructure (LII).
- The mission of **Kalamazoo Telecity USA** is to equip and integrate all area residents for job competition and participation in the Information Age, during a period when a major, racially integrated blue-collar employer is closing down (the local General Motors metal stamping plant), to stimulate metropolitan economic growth while enhancing the economic productivity and quality of life for the area's citizenry, and the stressed local economy.
- The Telecity is a **Local Information Infrastructure (LII)** which is a network of networks: communityNET (the telecityHub), learnNET (including the TIDEnet and SMILE projects), collegeNET, healthNET, bizNET, jobNET, and other networks to be integrated and reinforced by a Metropolitan Area Network (MAN)
- The Telecity USA solution will address the following social-economic problems:

000001

a. **communityNET** addresses the issues of
- providing Internet access for the "Information Have-nots," and their children, so they can and will **gain *ease-of-access* to Information Infrastructures**, acquiring familiarity, training,
  - in their homes and neighborhoods, as well as
    - public and educational centers.
- This ***ease-of-access*** and ***familiarity*** will simultaneously **reduce** the **technological phoblas** sometimes found among
  - the uninitiated and under-served
  - of ***all ages***, and
  - ***all socio-economic groups*** ;
- citizen access to information of 600 local and 24,000 national agencies providing social and educational services;
- citizens access to the vast resources of art, literature, and science available through the Internet access;
- citizens, professionals, organizations communicating among themselves locally, nationally, and globally.
- local event schedules, and local governments information will be available on-line to citizens.

b. **learnNET** addresses the issue of the availability of the best scholars, teachers, and courses,
- **without regard to geography, distance, resource**, or **disability** in the scope of
  - K-12 schools (about 30), and
  - continuing education.
- The network should provide an environment for
  - developing new skills for Information Age jobs, while
  - also **addressing disparities** between
    - inner city schools, and
    - suburban schools, and
    - the smaller and poorer rural school districts, with smaller tax bases; In addition,
- The network will allow access to the **TIDE**net (**T**echnology **I**n **D**istance **E**ducation) and **SMILE** (**S**outhwest **M**ichigan **I**nter-connect **L**earning **E**xperience) networks being prepared by TeleCity Board Members and their agencies;

c. **collegeNET** addresses the issue of the availability of the best scholars, instructors, and courses, without regard to geography, distance, resource, or disability. The network should provide an environment for the development of new skills for Information Age jobs. About 29 colleges and universities from Southwestern Michigan will be interconnected (100,000 students, 10,000 plus faculty, and several million on-line books).

d. **healthNET** addresses the issue of improving of health care system and improving on-line services (to minimize waiting in-line), when and where you need them. Several local tertiary hospitals, 400-

600 physicians, will be sharing information and facilitated communications, along with insurance providers and patients.

e. **bizNET** addresses the issue of providing the information infrastructure for local businesses to provide electronic marketing, electronic customer service and electronic commerce in a range of local, national, and global business situations.

f. **jobNET** addresses the **issue of skills development and job matching** at a time when a cornerstone local blue-collar industry (the General Motors metal stamping plant) is closing. Job and skills matching will occur at the local, regional, national, and eventually, global levels, integrating with other data bases.

g. The **MAN** will integrate all users of the Telecity with high-speed telecommunication, which should transform smaller, existing LANs into a superLAN (customer LANs will be replaced by the MAN utility).

3. WHY IS THIS AN IMPORTANT PROBLEM, AND WHY DOES YOUR PROJECT FIT THE TIIAP?

- The problem of allowing citizens to access the local, national, and global information resources, and benefit from them to improve their work opportunities and quality of life. In addition, the need to empower local business and institutions to develop efficiencies, and increase their effectiveness through synergistic inter-organizational cooperation.

  These problems, if they are going to be solved, require the development of a second civilization infrastructure, which we would like to call the **Local Information Infrastructure (LII)**. These problems and their solutions are of such a magnitude that we need financial assistance from NTIA's TIIAP program. The development of the first LII is an unprecedented issue for local government, and the business, educational, and health communities.
- Beginning in 1992, we created a CITIZENS TASK FORCE to develop a solution for **Reducing Disparities of Access. We were concerned** about bridging the gap between the "Information Haves" and "Have nots." We are strongly committed to identify, locate, communicate, and serve the "information have-nots" with multiple approaches, so we do not create a dispossessed, by-passed and alienated class. We hope to address this challenge via an information kiosk delivery system, located in various public places, PC-accessing units located in numerous inner city centers (transforming various neighborhood facilities, and CDBG-funded neighborhood association centers into "walk-in info centers"), and providing low-cost home subscribership (at or below $5 per month).
- The Telecity solution has been planned with the architectural approach. As a result of this, graphic model of the Telecity and its networks have been developed. The **network of networks model** allows for the ***laissez faire*** growth of 6+ applications networks without the hierarchical central control.

The Telecity Hub central steering function will be limited to the networks' common menu, internetworking interfaces, the development of standards, and information policy. **Technical quality** of the Telecity model is at the "state of the art," or even at the cutting edge of current development.

- The Telecity model has the **ability to serve as a model** for about 200 similar locations in the U.S. This model is missing link in a chain of NII-GII, as described by Vice President Gore's initiative. With the Telecity model intact, the Administration's program could be composed of a three tier model, consisting of **LII–NII–GII.** The Telecity "**Strategic Overview**" document is available to serve as a blue-print for other communities, throughout the nation.

4. HOW WILL YOU CARRY OUT THE PROJECT?

The Telecity project will be carried out with project management techniques, including the following solutions:

- Incorporating The Telecity as a non-profit organization. This will be done in April-May of 1995, by the Cities of Kalamazoo and Portage forming a non-profit corporation, in conjunction with TeleCity leaders. Immediately after the Michigan Department of Commerce approves the incorporation documents, Telecity Inc. will promptly apply to the Internal Revenue Service for the tax-exempt status authorized by Section 501(c)(3) of the Internal Revenue Code. Congressman Fred Upton has repeatedly assured us that he has made advance arrangements with the IRS for an expedited revenue of our Section 501(c)(3) application;
- Collecting local institutional fees to finance early activities, such as renting (or arranging in-kind) office space, etc.;
- Hiring a project director and a small staff of computer, software, and network professionals to develop and install all necessary Telecity technical components;
- Hiring an in-house specialists who will be developing customized solutions;
- Formalization of alliances with the Telecity, Inc., partners who will be developing Telecity applications networks;
- Hiring the Evaluation Center at Western Michigan University

The Telecity project mile-stones are as follows:

- The incorporation of Telecity, Inc. -- April--May 1995
- The establishment of IRS 501(c)(3) status -- Spring - Summer 1995
- The hiring of Telcity staff -- Fall 1995
- The developmental work on software and network integration -- Fall 1996
- The developmental work on the first application networks - Winter 1996-97
- Experimental user operations on the Telecity networks -- Spring 1997

5. WHAT ARE YOUR QUALIFICATIONS AND WHO ARE YOUR PARTNERS?

Key project leaders are (enclosed short resumes):

Andrew TARGOWSKI, Ph.D.; Professor of Computer Information Systems at Western Michigan University, a pioneer of East-European computing, who developed a concept of **INFOSTRADA** (INFOHIGHWAY) and National Information Systems Constellation in Poland during **1972**, when he was a Head of the Polish National Bureau for Information Technology (today's "TIIA"). Since 1992 Chairman of Kalamazoo Electronic Global Village Committee, and since 1993 Chairman of Telecity Board of Directors.

Glenn MILLER, Director of Worldwide Video & Satellite Communications at the Upjohn Company (a $3.5 billion pharmaceutical corporation based in Kalamazoo and Portage, Michigan). Co--Chair of Board of Directors, Telecity.

Adrian HORTON, a Senior Vice President of First of America Banking Corporation (the 33rd largest bank in the US.). In 1994 was selected as one of the top 40 bankers in the American banking industry. Chair of the Technology Task Force of Telecity.

James BOSCO, Ph.D., Professor in the Department of Education and Professional Development at Western Michigan University in Kalamazoo, Chair of the K-12 Education Task Force of Telecity. He collaborated in defining the learnNET.

Jon VanDerMeer, Assistant Director of Telecommunications at Western Michigan University in Kalamazoo. Secretary of Board of Directors, Greater Kalamazoo Telecity USA.

Mark RAINEY, Director, Regional Educational Media Center and Instructional Center (REMC/IC), Kalamazoo Valley Intermediate School District. A member of Board of Directors, Telecity. He will be instrumental in expanding the TELECITY networks (such as learnNET) to the K-12 schools Kalamazoo Valley Intermediate School District.

Charles McDONALD, Project manager of TIDE (Technologies in Distance Education) at the Regional Educational Media Center Instructional Center (REMC/IC) at Kalamazoo Valley Intermediate School District. He will be instrumental in expanding the TELECITY networks (such as learnNET) to the K-12 schools Kalamazoo Valley Intermediate School District.

Matthew MORRIS, attorney, JD in private practice. He has also MPA degree. Served as Assistant City Attorney at Kalamazoo City Hall, City Planner (in California), Director of City Planning (in Nevada). Prepared this grant proposal (Telecity) for NTIA with Andrew Targowski.

Craig THOMAS, Assistant Professor at Western Michigan University Department of English, He will direct Telecity's community out-reach, and coordinate the dissemination of publicity regarding this innovative LII model for application in other communities throughout the United States.

Key partners are:

- WESTERN MICHIGAN UNIVERSITY (26,000 students), providing distance education services to WMU's regional centers in Battle Creek; Grand Rapids, Benton Harbor, and Muskegon. Several faculty and staff members participate in the Telecity planning effort.

- KALAMAZOO VALLEY COMMUNITY COLLEGE (10,000 students) is a leader in community and vocational education in Michigan. Recently, KVCC acquired a new downtown campus, with the task of supervising the Kalamazoo Museum. The Museum's new interactive exhibit systems and services should play a key role in fostering community attitudes in favor of interactive telematic technology
- KALAMAZOO VALLEY INTERMEDIATE SCHOOL DISTRICT which develops the TIDE (Technology In the local community Distance Education) project to provide distance learning programming to six pilot schools.
- THE W.E. UPJOHN INSTITUTE FOR EMPLOYMENT RESEARCH (A 60 year old non-profit institution, with international credentials) will help and support the development of jobNET.
- THE UPJOHN COMPANY, $3.5 billion global pharmaceutical company with a strong commitment to the community development and quality of life in Kalamazoo and surrounding communities.
- FIRST OF AMERICA BANK CORPORATION the 33rd largest bank in the U.S. Its Computer Services are located in Oshtemo, just outside of Kalamazoo. This facility provides services through 10,000 remote on-line terminals to hundreds of branches in Midwest and beyond. The Bank is very interested in pursuing the development of a MAN to accelerate intra-city services in the Greater Kalamazoo Area.
- CITY OF KALAMAZOO is an initiator and supporter of the teleCITY project for the progressive community which has a significant minority population, which has been economically by-passed during prosperous times.
- CITY OF PORTAGE is a adjacent suburban community, sharing the regional spotlight with Kalamazoo and Battle Creek.
- KALAMAZOO COUNTY
- CEO COUNCIL OF KALAMAZOO COUNTY
- SOUTHWEST MICHIGAN HEALTH CARE COALITION
- 100 plus VOLUNTEERS who have been working to develop solutions for teleCITY, serving on 15 different Task Forces and Committees.
- THE W. K. KELLOGG FOUNDATION, the second largest foundation in the United States.
- THE UPJOHN FOUNDATION the local foundation which supports the local community projects.
- THE KALAMAZOO FOUNDATION is a local foundation, originally created by Dr. W.E. Upjohn, and funded today by numerous community contributions. This foundation supports various community development and quality of life projects in the Greater Kalamazoo-Battle Creek area.
- THE FETZER FOUNDATION is a local foundation created and funded by the late John E. Fetzer, a pioneer in various telecommunications media. His Foundation has a primary focus on preventative and holistic health. As such, it will be participating in **healthNET**.

- THE JOHN AND MARY R. MARKLE FOUNDATION, which supports the improvements of mass communications including services growing out of new technologies for the processing and transformation of information.

6. WHO WILL BENEFIT FROM THE PROJECT?

- The end user population is potentially over 200,000 in a Metropolitan Statistical Area with over 457,000 people. The population estimate for Kalamazoo County during July 1994 is 228,796 in 85,000 households (Source: Kalamazoo County Planning Department).
  We anticipate TeleCity to achieve market penetration rates of 5%, 15%, and 25 % after each of the first three years) with 4,250, 12,750, and 21,250 households subscribing. At $5.00 per month, this would generate $60.00 per subscribing household on an annual basis, or $255,000 (5% market penetration), $765,000 (15% penetration), and $1,275,000 (25% penetration rate). Doubling the subscriber fees (**before** figuring the elasticity-of-demand, and potential decline of customer demand) could be expected to generate $510,000 (5%), $1,530,000 (15%), and $2,550,000 (25%) , respectively. After several years of use, the ease, convenience, and increasingly perceived need for retaining TeleCity, and its growing number of networks, could decrease the elasticity of demand, even as that experienced over time by the telephone, radio, television, and cable.
- The end users skills should become relatively high, since the education level in the Greater Kalamazoo area is above the national average. However, due to layoffs and closure of the local GM metal stamping plant, the area's blue- and green-collar population will need significant (re)training to fit the needs hiring employers seeking employees with Information Age skills. Conquering computer-related phobias, by friendly, in-home, in-neighborhood, and in-school use is needed to change mental barriers to computer literacy, and network fluency.
- The targeted end-users will be in the following groups:
  a). Workers who need retraining to fit the Information Age, will acquire skills and learn how to navigate in the electronic environment;
  b). The unemployed, under-employed, and opportunity seekers will be able to retrieve job offers, and match their skills to electronically-posted jobs, as well as directly apply to local and regional employers;
  c). Citizens who need the social services of 600 local agencies, and 24,000 agencies nationally;
  d). Clients, and providers of health care services, who can seek and exchange information, communicating their own needs;
  d). Pupils, students, and students of continuing education will reach-out for all types of information and knowledge, as well communicate their own messages throughout the world;
  e). Faculty members who need to reach-out to the vast information and knowledge resources available on the Matrix, to improve curricula, class syllabi, lectures, and research projects;

f). Executives and staffs of institutions, agencies, and businesses will retrieve information to expand their tasks, quality and range of service, as to instantly communicate business-oriented messages, or participate in BBS, on their business activities or interests;
g). Organizations involved in interorganizational/international systems and services to exercise the instant communications (EDI), or participate in electronic marketing, electronic customer service, or electronic commerce;
i). Others

7. HOW WILL YOU KNOW IF YOUR PROJECT IS SUCCESSFUL?

Community outreach to populations without access to, or awareness of the Greater Kalamazoo Telecity is so important for **reducing disparities of access and utilization** of the National Information Infrastructure and Global Information Infrastructure, that one of the WMU faculty members (Professor Craig Thomas) will be working with community groups on the North, East, and Near South Sides of Kalamazoo.

The evaluation criteria of the Telecity project First Phase successful implementation in June 1997:

1. A positive evaluation by outside reviewers from the WMU Evaluation Center;
2. At least a 75% degree of satisfying the requirements for pilot application network;
3. The technically tested coverage of 90% of the geographic area having an access to the services of Telecity;
4. The implementation of core telematic technologies, which determines the Telecity functionality. These technologies are: a computer HUB, networks interfacing software and telecomm interfaces (gateways, routers, etc.), networked-multi-treaded databases allowing a concurrent interacting, computer & software supporting application networks, a MAN, a navigation user tools;
5. The implementation pilot components: Telecity HUB, community NET, and MAN by June 1997;
6. Substantial training and access availability for under-served groups in terms of first 2000 users, till June 1997.
7. Strong sign of self-sufficiency in the future, consistent with plans for market penetration in Kalamazoo County of 5%, 15%, and 25% at the end of the first three years; and
8. The acquisition of further funding (90%) within the Greater Kalamazoo-Battle Creek Statistical Area for phases occurring after June 1997;